UNITED STATES DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY,
OFFICE OF FOREIGN SEED AND PLANT INTRODUCTION.

NO. 69.

BULLETIN OF FOREIGN PLANT INTRODUCTIONS.

November 1 to 15, 1911.

NEW PLANT IMMIGRANTS.

(NOTE: Applications for material listed in this bulletin may be made at any time to this Office. As they are received they are filed, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it, as well as to others selected because of their special fitness to experiment with the particular plants imported.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.)

GENERA REPRESENTED IN THIS NUMBER.

Annona.	32044-046, 32083.	Ipomoea.	32084-086.
Asparagus.	32080-081, 32091.	Medicago.	32078.
Callitris.	32071.	Michelia.	32043.
Carica.	32158-159.	Oryza.	32040.
Convolvulus.	32153-154.	Passiflora.	32047-050, 32137-138.
Eugenia.	32072.	Pelargonium.	31957-975.
Garcinia.	32082.	Phaseolus.	32035.
		Undetermined.	32063.

PLATE: Date Culture in Egypt. From Photographs by Mr. Aaron Aaronsohn.

ANNONA RETICULATA. (Annonaceae.) 32083. Cuttings of the bullock's heart from Cairns, North Queensland. Presented by Prof. Charles E. Wood, manager, Kamerunga State Nursery, Cairns. Introduced for the work of this Office in bringing together all the improved varieties of this genus for trial. For distribution later.

ANNONA SQUAMOSA. (Annonaceae.) 32044-046. Seeds of the sugar-apple from Brazil. Presented by Mr. Welman Bradford, Crowley, Louisiana. "Fruta de conde. This is known as the Princess fruit; there is another variety called the Prince. In my estimation it is the best fruit that ever grew. The largest plants I have noticed are about twelve feet high, and the largest fruit about five inches in diameter." (Bradford.) For distribution later.

ASPARAGUS SP. (Convallariaceae.) 32091. Seeds of asparagus from the Caucasus. Presented by Mr. A. Schelkownikow, Chaldan Station, the Caucasus, at the request of Mr. Frank N. Meyer, agricultural explorer. A large asparagus which so impressed Mr. Meyer that he made a special effort to have seeds secured for the work now being undertaken in breeding rust-resistant forms, and also improved forms for the use of florists. For distribution later.

ASPARAGUS SPP. (Convallariaceae.) 32080-081. Seeds of asparagus from Jeolikote, United Provinces, India. Presented by Mr. Norman Gill, superintendent, Kumaun Government Gardens. Asparagus curillus, a barbed form, and Asparagus filicinus, without barbs, the latter especially introduced as a great improvement over the ordinary A. plumosus for florists' use, being much hardier and handsomer and of a different type. For distribution later.

CALLITRIS RHOMBOIDEA. (Pinaceae.) 32071. Seeds of Tasmanian cypress pine from Tasmania. Presented to the Forest Service by Mr. L. A. Evans, Hobart, and to this Office by Mr. Raphael Zon, Chief of Silvics, Forest Service. "The tree is confined mainly to the coast, where it does well on poor soils. It seems to have a slow growth, but in time reaches a height of one hundred feet and a diameter of about two and one half feet. In spite of the fact that it is chiefly a warm climate tree, it also thrives in some of the colder parts of Tasmania where there is considerable frost. It has a plain, whitish wood, without figure, and with little difference in color between the sapwood and the heartwood. Its grain is hard and close and the wood is exceedingly durable. It is largely used for piles, telegraph poles, and in general con-

struction work. It not infrequently grows in mixture with eucalyptus and when grown in the forest under moderate light conditions its form is that of a sharp cone which is tall both in proportion to the diameter and the spread of the lateral branches. There are all gradations from this form to the spreading, bushy tree found in the open. Although the tree is widely used for a great variety of purposes in Tasmania, I doubt if it would prove superior to our own conifers, and believe that the chief advantage in introducing it into Florida would probably be to furnish a comparatively soft, light wood for local use." (Zon.) For distribution later.

CARICA PAPAYA. (Papayaceae.) 32158-159. Seeds of the papaya from Miami, Florida. Grown at the Plant Introduction Garden, Miami. The two fruits from which these were taken were both grown from seeds introduced from the Canal Zone by Mr. H. F. Schultz, one producing small fruits of excellent flavor, with very tender meat, the other producing large-sized pyriform fruits of excellent quality, sometimes weighing ten pounds, and maturing in sixteen months from seed. For distribution later.

CONVOLVULUS SPP. (Convolvulaceae.) 32153-154. Seeds of so-called rose-root from Puerto Orotava, Teneriffe, Canary Islands. Presented by Dr. George T. Perez. These two, C. floridus, and C. scoparius, are among the comparatively few shrubby species of the genus. They have become rare in the islands because of the use of the roots to furnish a clear amber-colored oil with a rose-like smell, used to adulterate attar of roses. The C. floridus, locally known as Guadil, is an ornamental shrub, which in flower is one of the brightest and most attractive objects in the Teneriffe landscape. The pale powdered green of the leaves forms an excellent background for the masses of pure white flowers, which so completely cover the shrub that it appears as if covered with newly fallen snow. The plant is a rapid grower and should flower in the second or third year. (Adapted from D. Morris, Kew. Misc. Bull. 1893: 133-136.) For distribution later.

EUGENIA JAMBOLANA var. (Myrtaceae.) 32072. Seeds from Algiers, Algeria. Presented by Dr. L. Trabut. "Originally from Madagascar. A very vigorous tree bearing large leaves and large sweet fruits." (Trabut.) For distribution later.

GARCINIA SP. (Clusiaceae.) 32082. Seeds from China. Presented by Mr. George Campbell, Kia-ying chou. "This morning my boat en route to Swatow, China, stopped at a market

town and I strolled through it. I found a few specimens of a fruit called Sann pee-pah or wild loquat. It was the size of an unhulled walnut and looked like a yellow apple, save that it was spherical and marked into seven segments. It peeled like an apple. The flesh was about as thick as the hull of a walnut and very sour, but enclosed a core of seven lobes, each, save one, containing a seed. Each seed was enclosed in a sweet pulp very pleasant to the taste and suggesting the mangosteen to me." (Campbell.) For distribution later.

IPOMOEA BATATAS. (Convolvulaceae.) 32084-086. Seeds of sweet potatoes from Port Moresby, Papua. Presented by Mr. A. C. English, Barodobo Plantation, Kapa Kapa, Port Moresby. "Seeds of three varieties that we have here in this locality, which are great tuber producers. One is a white skin and white flesh, one a white skin and deep yellow flesh, and one a pink skin and white flesh. Seeds from sweet potatoes are rarely known here, even amongst the natives who plant them extensively." (English.) May be valuable in creation of new strains of sweet potato. For distribution later.

MEDICAGO FALCATA. (Fabaceae.) 32078. Seed of alfalfa from Tomsk, Siberia. "A tall, semi-erect form of 'Sholteek' growing four to five feet in height, having much foliage and bearing large pods containing heavy seeds. Apparently very little shattering. Collected in the Botanical Garden of the University of Tomsk. To be tested for forage purposes and for hybridization exclusively." (Meyer's introduction.) For distribution later.

MICHELIA CHAMPACA. (Magnoliaceae.) 32043. Seeds from Brazil. Presented by Mr. Welman Bradford, Crowley, Louisiana. "Magnolia having yellow blooms. Not as sweet as our variety. Grows thirty feet high. It is being planted in Sao Paulo as an ornamental street tree." (Bradford.) For distribution later.

ORYZA SATIVA. (Poaceae.) 32040. Seeds of rice from Aksu, Chinese Turkestan. A local variety of wetland rice, famous throughout Turkestan, which produces very large grains of a snow-white color, which swell tremendously in cooking and always remain separate. Will probably stand a considerable amount of alkali. (Meyer's introduction.) For distribution later.

PASSIFLORA SPP. (Passifloraceae.) 32047-050. Seeds of "Maracujas" from Brazil. Presented by Mr. Welman Bradford,

Crowley, Louisiana. Seeds of several species used as fruits in Brazil, some yellow, some purple, and both large and small forms. Introduced for work in breeding with the native American maypop in the hope of producing a valuable fruit. For distribution later.

PASSIFLORA INCARNATA. (Passifloraceae.) 32137-138. Plants and seeds of the maypop of the southeastern United States, purchased from Mr. Harlan P. Kelsey, Salem, Mass., for breeding purposes. Obtained for the collection being made by this Office of all the species of this genus having edible fruits for use in hybridization work. For distribution later.

PELARGONIUM SPP. (Geraniaceae.) 31957-975. Cuttings from the Royal Botanic Gardens, Kew, England. Presented by Dr. David Prain, Director. Nineteen South African species and hybrids of this genus obtained for the work of a correspondent in breeding new forms for commercial use. For distribution later.

PHASEOLUS SP. (Fabaceae.) 32035. Seeds of a bean from the South Sea Islands. Presented by the Rev. Father C. N. Field, Boston, Mass. "I never tasted a variety as delicious as this one. They were given to me by a man who had traveled around the world. They thrived much better than ordinary scarlet runner beans, on very poor soil near Boston, grew ten feet high and were remarkably productive. They are eaten baked after removing the pods and are especially sweet." (Field.) For distribution later.

UNDETERMINED. 32063. Seeds from Brazil. Presented by Mr. Fred. Birch, Theophilo Ottoni, Minas Geraes, Brazil. "Seeds of a forest shrub which I have myself discovered here. It is a rare pleasure to find a new fruit thus! It is a shrub about four feet high of very compact growth, stem and branches tough and elastic, leaves dark green, glossy, and fairly tough, about one and one half to two inches long by one inch wide, built like so many of the leaves here for living through a long dry season. I have not yet seen the flower. The fruit is a sort of elongated cherry, about seven eighths of an inch long by three eighths to seven sixteenths of an inch thick in the middle , black or purple black and with a bright, glossy skin. They usually occur singly, strung along the branches, but sometimes there are two together. From one small shrub we have eaten, I think, about three hundred fruits. The flesh is about one eighth of an inch thick over the seed and it is soft and juicy and tastes more

like a black cherry than any other northern fruit I can think of. When I remember the size of the wild fruit which the common cherry is supposed to have originated from, I think this little fruit promises to repay cultivation well. I would suggest trying it in Florida or California or Texas. The latter place might, I think, be the best for it. From mid-August to the end of September is the time of fruiting, i. e. early spring here." (Birch.) For distribution later.

NOTES FROM FOREIGN CORRESPONDENTS.

CHINA. Canton. Pres. C. K. Edmunds, of Canton Christian College, writes October 7 that he has just returned from a trip through Kwangtung and Kiangsi provinces, and expects to leave shortly for a journey in Yunnan and Szechuan, but so far has failed to find the wild-rice, Zizania, which we requested of him.

EGYPT. Assiout. Mr. Aaron Aaronsohn, collaborator of this Department, who is at present studying the Egyptian varieties of dates, with a view to the importation of the best varieties, writes October 25 that he has received the greatest assistance from the officers of the Department of Agriculture of Egypt, who have undertaken to bring together, pack and ship offshoots of all the varieties decided upon by him as the best suited for trial in this country. In an earlier letter he describes the "Dry land date culture" of the Mediterranean shore between Alexandria and Rosetta, where tremendous crops are grown entirely without irrigation, and a rapidly increasing area is being brought under cultivation.

Mr. Aaronsohn also writes from Assouan, October 29, that he has succeeded in finding at Assiout, the true "Wahi" date, and is arranging to secure the offshoots through the American consular agent at the place. From Assouan he is sending five selected varieties, and hopes to obtain specimens of some fine dates at the Luxor market.

FRANCE. Paris. Mr. Walter T. Swingle, who has been attending the International Congress of Genetics in Paris, writes November 5, that he has been investigating the citrus relatives of Africa, and has found two new genera and a new species. The governer general of Algeria has promised that Dr. Trabut, and M. Brunel, the Director of agriculture for Algeria, soon to be appointed, shall visit America next year. November 12 he writes, "I shall bring back in my cabin living plants of the new African bael fruits, one of these able to grow in brackish water and will be a rival of Gonocitrus angulata as a stock for Citrus in alkali lands. I go to

Africa in a day or two to attend the cotton growers' congress at Orleansville on the 20th. An important new office has just been created in the Colonial Office. M. Chevalier has been made a sort of traveling inspector of the Colonial gardens and experiment stations. He is full of energy and will be a valuable man to work with."

INDIA. Calcutta. Mr. William H. Michael, American consul, writes November 13, that he has been looking into the matter of canning mangos as practiced in India. He finds that the work is being done by a young Indian who was trained in the United States, and with machinery obtained from the United States. This young man, whose factory last year turned out 20000 cans of mangos and pineapples, and who this year expects to put up 18000 cans of mangos and 12000 cans of litchis, says that there is practically no difference in canning mangos from the methods used in canning the large freestone peaches of California. The fruit so far put up has withstood shipment to England and in the cans examined the fruit retained its flavor as well as could be expected.

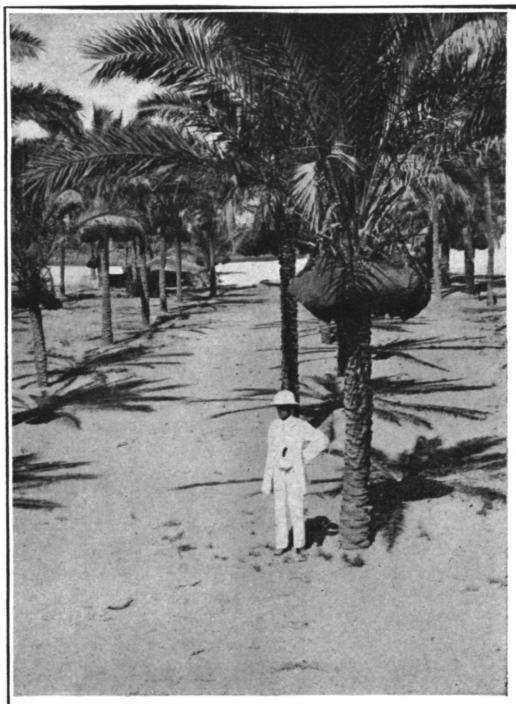
MEXICO. Zacuapam. Huatusco. Dr. C. A. Purpus writes October 31, that he has been collecting seeds and cones of Pinus rudis, P. pseudostrobus, and another which may prove to be P. teocote. On account of the insecurity of the country he was unable to ascend the peak of Mt. Orizaba in order to obtain seeds of P. hartwegii.

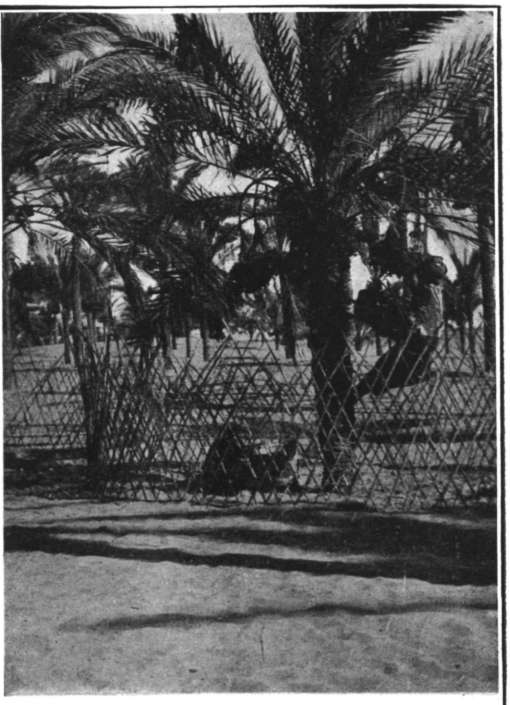
RUSSIA. Samara. Mr. Frank N. Meyer writes November 8, that he has returned to European Russia and will probably get into the alfalfa regions of the northern Caucasus, since the troubles in China have probably effectively prevented any work in the northwestern provinces of that country this winter.

SPECIAL NOTE.

Through the kindness of the Forest Service we are enabled to offer a small quantity of the seeds of the bigtree (Sequoia washingtoniana)to experimenters interested in cultivating this tree.

Issued December 20, 1911.





DATE CULTURE ON THE SAND DUNES OF EGYPT.

(Mr. Aaronsohn has shipped 150 offshoots representing varieties which grow without irrigation on the littoral of the Nile Delta.)

PROTECTION OF DATES BY BAGS.

PACKING FRESH DATES FOR THE CAIRO MARKET.

PICKING OUT RIPE FRESH DATES.

TRANSPORT OF FRESH DATES.